

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHAWN S. CORNELIUS, CLIFFORD DONOUGHE,
ARNOLD Z. HUFFMAN, RICHARD R. KRAHN,
and MICHAEL S. SWEENEY

Appeal 2007-0928
Application 09/943,964
Technology Center 2100

Decided: August 10, 2007

Before JAMES D. THOMAS, LEE E. BARRETT, and
JOSEPH F. RUGGIERO, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-23. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

Appellants' claimed invention relates to a system and method for monitoring a remote data processing system in which a plurality of software stage components are cascaded to form a remote software module to receive a data message. The received data message is detected at a group of logical nodes within the remote software module to determine the flow of the data message between the logical nodes. Any software stage component that blocks or disrupts the flow of the data message between two adjacent logical nodes is identified as a deficient software stage component. (Specification 2-3).

Claim 1 is illustrative of the invention and reads as follows:

1. A remote data processing system comprising:

a data receiver for receiving a data message;

a remote software module arranged to receive the data message from the data receiver, the remote software module including at least a first stage software component cascaded with a second stage software component; and

a fault detector associated with the first software stage component and the second software stage component to detect a fault in the remote software module by detecting whether the data message or a derivative thereof flows entirely through at least one of the first stage software component and the second stage software component.

The Examiner relies on the following prior art references to show unpatentability:

| | | |
|----------|--------------------|--|
| Hirosawa | US 5,237,677 | Aug. 17, 1993 |
| Pocrass | US 5,428,806 | Jun. 27, 1995 |
| Neimat | US 6,012,059 | Jan. 4, 2000 |
| Short | US 6,178,529 B1 | Jan. 23, 2001 |
| Ullman | US 2002/0112039 A1 | Aug. 15, 2002 (filed Dec. 15, 2000) |

| | | |
|-------|-----------------|---------------------------------------|
| Sato | US 6,718,482 B2 | Apr. 6, 2004 (filed Jan. 19, 2001) |
| Ahmed | US 6,813,634 B1 | Nov. 2, 2004 (filed Feb. 3, 2000) |

Claims 1-21 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on an inadequate disclosure. Claim 22 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Ahmed. Claims 1-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahmed in view of Sato. Claims 13-21 also stand rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Ullman in view of Sato with respect to claims 13, 16, 18, and 21, adds Short to the basic combination with respect to claims 14 and 15, adds Pocrass to the basic combination with respect to claim 17, and adds Hirosawa to the basic combination with respect to claims 19 and 20. Claim 23 stands rejected as being unpatentable over Ahmed in view of Niemat.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs and Answer for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

ISSUES

(i) Under 35 U.S.C § 112, first paragraph, does Appellants' disclosure satisfy the "written description" and "enabling" clauses of the statute?

(ii) Under 35 U.S.C § 102(e), does Ahmed have a disclosure which anticipates the invention set forth in claim 22?

(iii) Under 35 U.S.C § 103(a), with respect to appealed claims 1-12, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Ahmed with Sato to render the claimed invention unpatentable.

(iv) Under 35 U.S.C § 103(a), with respect to appealed claims 13, 16, 18, and 21, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Ullman with Sato to render the claimed invention unpatentable.

(v) Under 35 U.S.C § 103(a), with respect to appealed claims 14, 15, 17, 19, and 20 would the ordinarily skilled artisan have found it obvious to modify the combination of Ullman and Sato by adding various tertiary references to render the claimed invention unpatentable.

(vi) Under 35 U.S.C § 103(a), with respect to appealed claim 23 would one of ordinary skill in the art at the time of the invention have found it obvious to combine Ahmed with Neimat to render the claimed invention unpatentable.

PRINCIPLES OF LAW

1. INADEQUATE DISCLOSURE

A. WRITTEN DESCRIPTION

The function of the written description requirement of the first paragraph of 35 U.S.C. § 112 is to ensure that the inventor has possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him. *In re Wertheim*, 541 F. 2d 257, 262, 191 USPQ 90, 96

(CCPA 1976); *In re Gosteli*, 872 F.2d 1008, 1012, 100 USPQ2d 1614, 1618 (Fed. Cir. 1989); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). In establishing a basis for a rejection under the written description requirement of the statute, the Examiner has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 265, 191 USPQ at 98.

B. ENABLEMENT

In order to comply with the enablement provision of 35 U.S.C. § 112, first paragraph, the disclosure must adequately describe the claimed invention so that the artisan could practice it without undue experimentation. *In re Scarbrough*, 500 F.2d 560, 566, 182 USPQ 298, 305 (CCPA 1974); *In re Brandstadter*, 484 F.2d 1395, 1404, 179 USPQ 286, 293 (CCPA 1973); *In re Gay*, 309 F.2d 769, 774, 135 USPQ 311, 316 (CCPA 1962); and *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). If the Examiner has a reasonable basis for questioning the sufficiency of the disclosure, the burden shifts to Appellant to come forward with evidence to rebut this challenge. *In re Doyle*, 482 F.2d 1385, 1392, 179 USPQ 227, 232 (CCPA 1973); *In re Brown*, 477 F.2d 946, 950, 177 USPQ 691, 694 (CCPA 1973); *In re Ghiron*, 442 F.2d 985, 992, 169 USPQ 723, 728 (CCPA 1971); and *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). However, the burden is initially upon the Examiner to establish a reasonable basis for questioning the adequacy of the disclosure. *In re Strahilevitz*, 668 F.2d 1229, 1232, 212 USPQ 561, 563 (CCPA 1982); *In re*

Angstadt, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976); *In re Armbruster*, 512 F.2d 676, 677, 185 USPQ 152, 153 (CCPA 1975); and *In re Buchner*, 929 F.2d 600, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991).

2. ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). Anticipation of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed. Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

3. OBVIOUSNESS

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Furthermore, “‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

35 U.S.C. § 112, FIRST PARAGRAPH, REJECTION

With respect to the Examiner’s rejection based on the “written description” requirement of the statute, the Examiner maintains that Appellants’ disclosure lacks a description of the claimed feature of detecting whether a data message, or its derivative, “flows entirely through” at least one of a first or second software stage component. According to the Examiner (Answer 4-5), Appellants’ disclosure, at best, describes the detection of a deficient software component by detecting whether a software

stage component “blocks or disrupts” the flow of a data message, not whether the message flows “entirely through” a software stage component.

In response, Appellants call attention (Br. 17; Reply Br. 2) to the illustration in Figure 6 of their drawings in conjunction with the description at page 23, lines 11-23 of the Specification. We agree with Appellants that the ordinarily skilled artisan would recognize that by detecting the presence of a data message at the input of a software stage and by then detecting whether the message appears at the software stage output, a determination can be made as to whether the message entirely flows through the software stage. In our opinion, under the factual situation presented in the present case, the statutory written description requirement has been satisfied since Appellants were clearly in possession of the invention at the time of filing of the application. Accordingly, we do not sustain the rejection of claims 1-21 under the “written description” clause of the first paragraph of 35 U.S.C § 112.

We also do not sustain the Examiner’s 35 U.S.C § 112, first paragraph, rejection based on the “enabling” clause of the statute. We note that, while the Examiner’s statement of the grounds of rejection includes assertions that Appellants’ disclosure is not enabling with respect to the feature of detecting flow of data through software stages, the Examiner has never specifically indicated how Appellants’ disclosure would not be enabling with regard to such feature. We find no basis for the Examiner’s conclusion that the ordinarily skilled artisan would not have been able to implement Appellants’ described system which detects software stage

malfunctions by detecting the presence/absence of data messages at the output of a software stage that were present at the input of the software stage.

35 U.S.C. § 102(e) REJECTION

With respect to the appealed independent claim 22, the Examiner attempts to read the various limitations on the disclosure of Ahmed. In particular, the Examiner (Answer 5-6) points to the illustrations in Figures 2 and 3 of Ahmed as well as the disclosure at column 2, lines 29-65 of Ahmed.

Appellants' arguments in response assert that the Examiner has not shown how each of the claimed features is present in the disclosure of Ahmed so as to establish a case of anticipation. In particular, Appellants contend (Br. 19-20; Reply Br. 3) that, in contrast to the claimed invention, Ahmed's ping and reply system does not provide a disclosure of determining end-to-end communications continuity by outputting the same status code from an output of a remote software module that was input to the remote software module. According to Appellants, there is no indication in Ahmed that the reply message is the same ping message that was originally sent.

After reviewing the disclosure of Ahmed in light of the arguments of record, we are in general agreement with Appellants' arguments in the Briefs. While the Examiner does not dispute Appellants' contention that the reply message in Ahmed is not the same ping message that was sent, the Examiner takes the position (Answer 20) that claim 22 does not require that the outputted status code from the remote software module is the same as the status code that was inputted. After reviewing the language of claim 22, we simply find no basis for the Examiner interpreting the claim language in this

manner. As pointed out by Appellants (Reply Br. 3), the recitation of the outputted status code from the remote software module includes the word “the” indicating that it refers back to the earlier recitation of “status code” which is input to the remote software module.

In view of the above discussion, since all of the claim limitations are not present in the disclosure of Ahmed, we do not sustain the Examiner’s 35 U.S.C. § 102(e) rejection of independent claim 22.

35 U.S.C. § 103(a) REJECTIONS

We initially consider the Examiner’s obviousness rejection of claim 23, which is dependent upon claim 22, based on the combination of Ahmed and Niemat. The Niemat reference has been applied by the Examiner to address the dummy transaction status code feature set forth in claim 22. Since we find nothing, however, in the disclosure of Niemat which overcomes the innate deficiencies of Ahmed discussed *supra*, we do not sustain the Examiner’s 35 U.S.C. § 103(a) rejection of dependent claim 23.

We next consider the Examiner’s 35 U.S.C. § 103(a) rejection of claims 1-12 based on the combination of Ahmed and Sato. In attacking the Examiner’s reliance on Ahmed with respect to independent claim 1, Appellants contend (Br. 22-24) that, in contrast to the claimed invention, there is no disclosure in the ping-reply system of Ahmed that the ping message flows “entirely” through at least a first stage software component. According to Appellants (Reply Br. 5-6), there is no disclosure that Ahmed outputs the same ping message from a software component, such as a networked PC, that was originally sent but, rather, Ahmed outputs a reply message to the originally sent ping message.

We do not find Appellants' argument to be persuasive since we do not find such argument to be commensurate with the scope of independent claim 1. We find no requirement in claim 1 that the output of at least a first stage software stage component be the same as the input. We would point out that the language of the relevant portion of independent claim 1 is set forth in alternative format, i.e., the claim recites the detection of whether the data message or a derivative thereof flows entirely through at least a first software stage component. In our view, the ordinarily skilled artisan would recognize that the network PC outputted "OK" reply message (Ahmed, Figure 2) would be reasonably considered to be a derivative of the inputted status query ping message.

We also find to be unpersuasive Appellants' argument (Br. 20-21; Reply Br. 4-5) that Ahmed does not disclose the cascading of first and second stage software components as required by appealed claim 1. We fail to see why the router and networked PC elements illustrated in Ahmed's Figure 2 and described beginning at column 2, line 56 of Ahmed, which receive the ping message from the "Network 6000" maintenance server, would not be considered to be cascaded software stage component components.

We also agree with the Examiner (Answer 7, 22) that, regardless of the merits of the teachings of Ahmed related to cascaded software stage components, the applied Sato reference also has a teaching of cascaded software stage components in the form of operating systems 105 and 112 and communicating unit 110. Appellants' arguments with respect to Sato focus on the alleged deficiencies of Sato in disclosing the claimed fault

detection feature in which a data message flows “entirely” through a software stage component. As discussed above, however, we find such a feature to be disclosed in Ahmed.

For the above reasons, since it is our opinion that the Examiner’s prima facie case of obviousness has not been overcome by any convincing arguments from Appellants, the Examiner’s 35 U.S.C. § 103(a) rejection, based on the combination of Ahmed and Sato, of independent claim 1, as well as dependent claims 2-8 not separately argued by Appellants, is sustained.

We do not sustain, however, the Examiner’s 35 U.S.C. § 103(a) rejection, based on the combination of Ahmed and Sato, of separately argued dependent claims 9-12. Referring to our earlier discussion of Ahmed, we found that Ahmed’s ping and reply status message system satisfied appealed claim 1’s requirement of detecting whether a data message or its derivative flows entirely through a software stage component. The language of dependent claims 9 and 10 is more specific, however, since the fault detection feature of claims 9 and 10 requires the determination of a faulty software stage component detection if the data message is present at the input but not the output of each of the first and second software stage components, respectively. Similarly, the fault detection determination of dependent claims 11 and 12 requires the detection of the presence of the derivative of the data message at the input but not the output of each of the respective first and second stage software components. Since there is no disclosure in Ahmed that the ping and reply messages have the same data content, the features of dependent claims 9-12 are not satisfied.

Further, the Sato reference does not make up for the deficiencies of Ahmed in relation to the requirements of appealed claims 9-12. While Sato discloses the monitoring of the operation of a first software stage component 105 by detecting whether an “alive” message arrives at a second stage software component 112 within a predetermined time, there is no determination as to the presence of such “alive” message at the input of the second stage but not the output.

We next consider the Examiner’s obviousness rejection of claims 13, 16, 18, and 21 based on the combination of Ullman and Sato. As discussed by the Examiner (Answer 11), Ullman discloses the monitoring of various cascaded software stage components in a distributed data processing system. We find in Ullman a disclosure (e.g. Figure 9F, page 14, para. [0184]) of a ping and reply monitoring feature similar to that in the previously discussed Ahmed reference. In our view, since independent claim 13 sets forth alternative language similar to that of independent claim 1, the ping and reply disclosure of Ullman would satisfy the claimed requirement of detecting whether a data message or its derivative flows “entirely” through a software stage component for the identical reason as discussed above with regard to Ahmed in relation to claim 1.

Appellants’ arguments in response (Br. 32-33; Reply Br. 7-8) focus on the alleged deficiencies of Sato in disclosing the claimed fault detection feature in which a determination is made as to whether a data message flows “entirely” through a software stage component. We do not find this persuasive since, as discussed above, Ullman, as with Ahmed in relation to claim 1, provides a disclosure of detecting whether a data message or its derivative flows “entirely” through a software stage component.

Accordingly, since it is our opinion that the Examiner's prima facie case of obviousness has not been overcome by any convincing arguments from Appellants, the Examiner's 35 U.S.C. § 103(a) rejection, based on the combination of Ullman and Sato, of independent claim 13, as well as dependent claims 16, 18, and 21 not separately argued by Appellants, is sustained.

We also sustain the Examiner's 35 U.S.C. § 103(a) rejection of dependent claims 14, 15, 17, 19, and 20 in which the Short, Pocrass, and Hirose references are variously added to the combination of Ullman and Sato. Appellants' arguments in response rely on the arguments made with respect to the alleged deficiencies of Ullman in disclosing the fault detection feature of determining whether a data message flows "entirely" through a software stage component, which arguments we found to be unpersuasive as discussed *supra*.

CONCLUSION

In summary, we have not sustained the Examiner's 35 U.S.C. § 112, first paragraph, rejection of claims 1-21, nor the Examiner's 35 U.S.C. § 102(e) rejection of claim 22. With respect to the Examiner's 35 U.S.C. § 103(a) rejections, we have sustained the rejections of claims 1-8 and 13-21, but have not sustained the rejections of claims 9-12 and 23. Accordingly, the Examiner's decision rejecting appealed claims 1-23 is affirmed-in-part.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(effective September 13, 2004).

AFFIRMED-IN-PART

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